

AMENDMENTS TO THE DRAWINGS

Fig. 1 has been amended to add verbal labels for elements for 110, 140, 150, and 160. The attached sheet replaces the original sheet containing Fig. 1.

Attachment: Replacement Sheet (1)

REMARKS/ARGUMENTS

1.) Claim Amendments

The Applicant has amended claims 3-10, 12, and 15-19. Claims 1-2, and 14 have been canceled without prejudice. Accordingly, claims 3 13 and 15-19 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 3-10 have been amended to depend on claim 11. Claims 12 and 19 have been amended to incorporate the elements of claim 11. Claims 15 to 18 have been amended to depend on claim 19. No elements have been added which were not in the original submitted claims. Consequently, this amendment does not raise new issues that would require a further search or substantial consideration by the Examiner.

2.) Claim Rejections – 35 U.S.C. § 102(e)

The Examiner rejected claims 1-3, 7-8, 10-14 and 18-19 under 35 U.S.C. § 102(e) as being anticipated by Kuroda (US 6,732,074). In order to expedite allowance of this application, the Applicant has canceled claims 1, 2 and 14 without prejudice. Therefore, this rejection with respect to claims 1, 2, and 14 is deemed to be moot. To the extent that this rejection still applies to claims 11, 12, and 19, the Applicant respectfully traverses this rejection.

For discussion purposes, claim 11 is reproduced below:

11. A method for generating adapted references to be used for automatic speech recognition, comprising:

receiving a spoken utterance and matching a pattern of the spoken utterance with corresponding patterns of a plurality of currently valid references to obtain the currently valid reference which corresponds to the spoken utterance;

adapting the pattern of the currently valid reference corresponding to the spoken utterance by shifting the pattern of the currently valid reference towards the pattern of the spoken utterance to generate an adapted reference;

assessing the adapted reference by determining the distance between the adapted reference and at least one of the currently valid references; and

deciding on the basis of the one or more distances if the adapted reference is to be used for recognizing a subsequent spoken utterance.

Kuroda has been cited for teaching the element of “assessing the adapted reference by determining the distance between the adapted reference and at least one of the currently valid references (Kuroda, col. 6, lines 23-45).” The Applicant respectfully disagrees with this characterization of Kuroda. The cited reference from Kuroda is reproduced below:

That is, first, the dictionary updating unit 5 determines (in a step S8) whether or not the phoneme distance X between the features of the input phonemes and the corresponding phoneme information in the standard dictionary 1, temporarily stored as mentioned above, exceeds the predetermined threshold. As a result, when the phoneme distance X between the features of the input phonemes and the corresponding phoneme information in the standard dictionary 1 does not exceed the predetermined threshold (No of the step S8), the corresponding phoneme information in the standard dictionary 1 can be regarded as being similar to the input speech of the dependent speaker and well reflecting the features of the speech of the dependent speaker. Therefore, the dictionary updating unit 5 does not update the phoneme information of the standard dictionary 1.

In contrast to this, when the phoneme distance X between the features of the input phonemes and the corresponding phoneme information in the standard dictionary 1, temporarily stored as mentioned above, exceeds the predetermined threshold (Yes in the step S8), the corresponding phoneme information in the standard dictionary 1 cannot be regarded as well reflecting the features of the speech of the dependent speaker. Therefore, the dictionary updating unit 5 replaces the phoneme information in the standard dictionary 1 with the features of the input phonemes (in a step S9).

According to the Examiner’ analysis, “the currently valid reference” of claim 11 equates to the “phoneme information in the standard dictionary” of Kuroda. The Examiner also equates the “adaptive reference” of claim 11 to “the dictionary updating unit 5 replaces the phoneme information in the standard dictionary 1 with the features of the input phonemes” of Kuroda. However, as illustrated in the above citation, in Kuroda the “standard dictionary” is accessed – not the adaptive reference. Thus, Kuroda does not teach the step of “assessing the adapted reference by determining the distance between the adapted reference and at least one of the currently valid references.”

Kuroda, therefore, does not teach all of the elements of claim 11. Consequently, the Applicant respectfully requests that the §102 rejection be withdrawn.

Amended claims 12 and 19 have similar elements and thus, are patentable for similar reasons. Claims 3-10, 13, and 15-18 depend from the independent claims and recite further limitations in combination with the novel elements of the independent claim. Therefore, the allowance of claims 3-10, 13, and 15-18 is also respectfully requested.

3.) Claim Rejections – 35 U.S.C. § 103(a)

The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Kuroda in view of Homma, et al. (*Iterative Unsupervised Speaker Adaptation for Batch Dictation*). The Examiner states that “Homma et al. discloses a method that calculates the distances (differences) between an adapted reference (generated in step 2 of the algorithm in the second column of page 1), and currently valid references which do not correspond to the recognition result (page 3, section 3.1, a recognition result is rejected if the difference between the first and second candidates is not the largest). The Applicant respectfully disagrees with this characterization of Homma.

Homma's procedure of section 3.1 is reproduced below:

1. Calculate the differences between the likelihood of the adjacent candidates (n = 10 candidates were used).
2. Accept if the differences between the likelihood of the first and second candidates is the largest, otherwise reject the recognition result.

The Applicant is at a loss to understand how “differences between the likelihood of the first and second candidates is the largest, otherwise reject the recognition result” reads upon the claim element of “wherein the adapted reference is assessed by further determining distances between the adapted reference and currently valid references which do not correspond to the recognition result.” The step of “calculating the difference between the likelihood of the adjacent candidates” is not the same as the step of “determining distances between the adapted reference and currently valid references (which has already been defined by the Examiner as a standard dictionary).

As provided in MPEP § 2143, "[t]o establish a prima facie case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, under MPEP § 2142, "[i]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." It is submitted that Homma does not provide the claim limitations of claim 4. Regardless, as discussed above, amended claim 4 now depends on claim 11, which contains elements which are not found in Kuroda. It is also respectfully submitted that Homma does not disclose the elements of claim 11. Thus, a §103 rejection is not proper and should be withdrawn.

The Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Kuroda in view of Li, et al. (US 4,720,863). As provided in MPEP § 2143, "[t]o establish a prima facie case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, under MPEP § 2142, "[i]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." However, as discussed above, amended claim 5 now depends on claim 11, which contains elements which are not found in Kuroda. It is submitted that Li does not provide the missing claim limitations. Thus, a §103 rejection is not proper and should be withdrawn.

The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Kuroda in view of Junqua (US 6,253,181). As provided in MPEP § 2143, "[t]o establish a prima facie case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, under MPEP § 2142, "[i]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." However, as discussed above, amended claim 6 now depends on claim 11, which contains elements which are not found in Kuroda. It is submitted that Junqua does not provide the missing claim limitations. Thus, a §103 rejection is not proper and should be withdrawn.

The Examiner also rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Kuroda in view of official notice. As provided in MPEP § 2143, "[t]o establish a prima facie case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, under

MPEP § 2142, "[i]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." However, as discussed above, amended claim 6 now depends on claim 11, which contains elements which are not found in Kuroda. It is believed that the Official Notice does not provide the missing claim limitations. Thus, a §103 rejection is not proper and should be withdrawn.

Additionally, if the Examiner is maintaining his use of Official Notice in light of the amended claims, then the Applicant respectfully objects to the use of Official Notice. As the Examiner is aware, if the Applicant does not object to the use of Official Notice in this response, it may be deemed that the Applicant has waived such use.

Under MPEP §2144.03, official notice may only be taken of "facts outside of the record which are capable of instant and unquestionable demonstration as being 'well-known' in the art." When a rejection is based on facts within the personal knowledge of the Examiner, the facts must be as specific as possible, and the reference must be supported, when called for by the Applicant, by an affidavit of the Examiner, which may be subject to explanation by the Applicant. See also 37 CFR 1.104(d)(2). Pursuant to 37 CFR 1.104(d)(2), the Applicant respectfully requests the Examiner provide such supporting facts and evidence in the form of an affidavit, so that, if necessary, the Applicant may explain the reference - especially in light of a motivation analysis.

The Examiner rejected claims 9 and 15-17 under 35 U.S.C. § 103(a) as being unpatentable over Kuroda in view of Junqua. As provided in MPEP § 2143, "[t]o establish a prima facie case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, under MPEP § 2142, "[i]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." Amended claim 9 now depends on claim 11 and claims 15-17 now depend on claim 19. As discussed above, claims 11 and 19 contains elements which are not found in Kuroda. It is submitted that Junqua does not provide the missing claim limitations. Thus, a §103 rejection is not proper and should be withdrawn.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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